

VIA FACSIMILE TRANSMISSION 571-273-8300

PATENT
Attorney Docket: 135248 (AT 12553-1035)**Remarks**

Claims 1-6, 8-17 and 19-20 remain pending in this application. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1-6, 8-17 and 19-20 have been rejected under 35 U.S.C. § 101 as allegedly claiming non-statutory subject matter. Applicant respectfully traverses this rejection for reasons set forth hereafter.

Claims 1 and 17 are believed to properly recite statutory subject matter. Claim 1 recites a method comprising, among other things, transmitting ultrasound signals from a transducer into an area of interest, receiving, at the transducer, ultrasound echo signals from the area of interest, and converting said ultrasound echo signals received at the transducer into a first data stream associated with a first receive beam. The transmitting and receiving operations clearly recite measurements of a physical object, namely transmitting and receiving ultrasound signals into and from an area of interest. The converting operation constitutes an activity that is transformed outside of a computer into computer data, namely converting ultrasound echo signals into a data stream. Claims 1 and 17 fall squarely within the examples of statutory subject matter set forth in MPEP section 2106, regarding statutory process claims. Also, claims 1 and 17 closely resemble the examples of what constitutes statutory subject matter as discussed in In re Gelnovatch, 201 USPQ 136, 145 (CCPA 1979) and Arrhythmia Research Tech. v. Corazonix Corp., 22 USPQ2d 1033, 1038 (Fed. Cir. 1992).

Claims 6 and 12 also recite statutory subject matter. Claim 6 recites an ultrasound system that includes a transmitter, a receiver, a beamformer, a demodulator and a multiplexor. Each of the foregoing elements constitutes physical structures that form an apparatus. The transmitter, receiver and beamformer are well recognized physical elements that form part of an ultrasound machine. Regardless of whether the decimator and multiplexer constitute discrete elements or

VIA FACSIMILE TRANSMISSION 571-273-8300

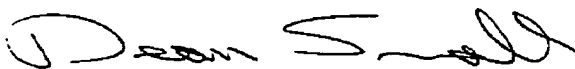
PATENT
Attorney Docket: 135248 (AT 12553-1035)

are implemented within a programmable gate array or otherwise, claim 6 recites sufficient structure to clearly fall within the scope of statutory subject matter

Claim 12 recites a demodulator for demodulating data streams that includes, among other things, a multiplexer that interleaves the data stream with a time dependent signal and a filter that filters the data stream, where the filter comprises coefficients having two consecutive data samples representative of the desired impulse response interleaved with two consecutive data samples that are zeros. The demodulator of claim 12 is an apparatus, namely a sub-assembly that is used within an ultrasound system. The multiplier and filter constitutes physical structures that form an apparatus. Regardless of whether the multiplier and filter constitute discrete elements or are implemented within a programmable gate array or otherwise, claim 12 recites sufficient structure to clearly fall within the scope of statutory subject matter.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



Dean Small (Reg. No. 34,730)
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070

10/9/06